



Northern Michigan FruitNet 2003 *Weekly Update* NW Michigan Horticultural Research Station

[Jim Nugent](#)
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July 1, 2003

GROWING DEGREE DAY ACCUMULATIONS as of June 30, 2003 at the NWMHRS

Year	2003	2002	2001	2000	1999	13 yr. Av. ('90-2002)
GDD42	1226	1149	1412	1398	1543	1315
GDD50	677	689	845	781	937	781

WEATHER:

Rains over the weekend caused disease infection periods, but rainfall totals ranged only from about 0.2" to 0.43". Overall conditions remain quite dry. Total precipitation at the NWMHRS for June was 2.12", while evaporation totaled 6.24".

GROWTH STAGES at NWMHRS

Apple: Red Delicious –28mm fruit

Pear: Bartlett – no fruit

Sweet Cherry: Napoleon – 16 mm fruit

Tart Cherry: Montmorency – 13 mm fruit

Apricot – no fruit

Plum: European type – 20 mm fruit

Grapes: Chardonnay – first bloom

INSECTS & DISEASES

By Gary Thornton

Apple growers who are not trapping need to keep an appropriate insecticide on to control **codling moth**. Codling moth trap catches increased to 13 per trap this week in Leelanau County. **Spotted tentiform leaf miner** is between generations now and averaged only 4 moths per trap. Tissue feeding and sap feeding mines are visible, but not numerous this year. **Green apple aphid** colonies are expanding slowly. **Potato leafhoppers** are just showing up now. Plums, strawberries (particularly first year), grapes, and young apples are all hot spots to watch. **European red mites** and **two spotted spider mites** are generally low in number, but both can be found. **Rose chafer** activity is increasing. **Sap beetles** are picking up in strawberries.

Sour cherry yellows leaf drop continues in area tart cherry orchards. Some growers are claiming this to be the heaviest leaf drop due to this virus-induced symptom that they have ever experienced. The wetting period that ended Monday resulted in a

drop due to this time induced symptom that they have ever experienced. The wetting period that ended Monday resulted in a heavy to moderate infection period for **cherry leaf spot**. The potential for **brown rot** is increasing in sweet cherries as they turn color and approach maturity. **Plum curculio** activity has sharply decreased this week, although growers should still keep sweets and tarts protected to avoid harvest contamination. We have not caught any **cherry fruit fly** yet, and we are trapping several locations. This is a very late emergence for this pest. **Two spotted spider mites** remain very low in the tart cherries at the NWMHRS.

Powdery mildew has been more severe than I had predicted, based on the harsh winter that we had. Symptoms are visible on the leaves, as well as occasionally on stems and fruit of tart cherry. These infections occurred shortly after shuck split when the fruit are particularly susceptible. Additional infections on the fruit are not likely to happen, as they become more resistant as they mature. New growth needs to be protected with appropriate fungicides to keep terminal growth continuing. Nova, Flint and Procur are likely the best products for control.

Although the timing is not ideal, growers can still apply gibberellic acid sprays, if they haven't done so yet.

USDA ANNOUNCES CHERRY CROP ESTIMATES

By Jim Nugent

Tarts: For the second year in a row, the USDA did not conduct an objective yield survey in Michigan. On June 26, USDA announced the results of their yield survey based on estimates provided by cherry growers. Because of this change in the reporting system, the USDA did not report by region in Michigan, but instead gave a statewide estimate only. On June 25th the processors also provided an estimate. Results are as follows:

USDA: 150m lbs. in Michigan; 218m lbs. total U.S.

Processor: 126m lbs. in Michigan; 198m lbs. total U.S.

The 5-year average production from 1997-2001 was 234m lbs. for Michigan and 311m lbs. for the U.S. Therefore, USDA is predicting that the 2003 crop will be 64% of the '97-'01 average in Michigan, and 70% of the average for the U.S. (I chose not to include 2002 in the 5-year average, as it is such a statistical anomaly).

Sweets: The USDA estimated 9,000 tons of sweet cherries in Michigan. This is up from last year's 2,700 tons, but down from the previous 5 year average (1997-2001) of 26,300 tons. Therefore, the crop estimate for 2003 is 34% of the '97-'01 average.

NEW HERBICIDE FOR STRAWBERRIES

By Bernie Zandstra and Eric Hanson, MSU Horticulture Dept.

A new Section 18 label for the herbicide Spartan (sulfentrazone) was received. Spartan is a preemergent material that was available last year, but only for late fall applications. This year's label allows for application during the postharvest renovation time (June 25 to July 25) as well as late fall to early winter (October 15 to December 15).

Spartan 4F is an FMC product that kills weeds by blocking chlorophyll formation. Use rates are 4 to 8 oz per acre and a maximum of 12 fl oz per season. Spartan can burn leaves and damage strawberries if applied when emerged growth is present. This is why use is restricted to times when strawberries are not actively growing. Do not apply to sand soils that contain less than 1 percent organic matter. There is some evidence that the potential for crop injury may increase if soil pH is 7.0 or above.

Experience with Spartan in Michigan is somewhat limited. However, observations indicate Spartan may be safer on strawberries than Sinbar and can provide control or suppression of several difficult strawberry weeds, including common groundsel (*Senecio vulgaris*), field pansy (*Viola arvensis*), mayweed or dog fennel (*Anthemis cotula*), pineapple-weed or chamomile (*Matricaria matricarioides*), several pigweeds (*Amarathis* sp.), white campion (*Silene alba*) and yellow woodsorrel (*Oxalis stricta*). Yellow nutsedge (*Cyperus esculentus*) may also be controlled.

As with any new herbicide, it is important to learn how strawberries and weeds respond on each farm.

Comments from Jim Nugent: Use lower rates on lighter soils. A copy of the Section 18 label is required when using this product.

[ACTUAL AND PREDICTED DEGREE-DAY
ACCUMULATIONS SINCE MARCH 1, 2003](#)

Please send any comments or suggestions regarding this site to:

Bill Klein, kleinw@pilot.msu.edu

Last Revised: 7-1-03



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July 8, 2003

GROWING DEGREE DAY ACCUMULATIONS as of July 7, 2003 at the NWMHRS

Year	2003	2002	2001	2000	1999	13 yr. Av. ('90-2002)
GDD42	1453	1382	1547	1587	1758	1498
GDD50	847	866	925	914	1096	908

WEATHER:

Dry conditions persist! Evaporation at the NWMHRS this past week totaled 1.98", with no precipitation. Since June 12, evaporation has totaled 7.15", while precipitation has totaled 0.44". As general rule for tree fruits, irrigation plus rainfall should supply 75% of the rate of evaporation (more for trees on dwarf rootstocks).

GROWTH STAGES at NWMHRS

Apple: Red Delicious – 34mm fruit

Pear: Bartlett – no fruit

Sweet Cherry: Napoleon – 21 mm fruit

Tart Cherry: Montmorency – 17 mm fruit

Apricot – no fruit

Plum: European type – 22 mm fruit

Grapes: Chardonnay – full bloom

CHERRY FRUIT FLY EMERGENCE

By Gary Thornton, District Fruit IPM Agent

On **July 2nd**, the first eastern cherry fruit fly was reported in the region. Egg laying begins 7-10 days after adult emergence. If you are not monitoring for this insect with yellow sticky boards in your orchards, plan to apply your first fruit fly insecticide on approximately **July 9th**. This is a year when trapping can pay off, as the pressure for this pest does not seem to be very heavy this season. Generally in commercial orchards with low fruit fly pressure, first trap catch is delayed significantly and

may not occur until adult flies migrate in from breeding sites in abandoned orchards and wild sites. Without monitoring, it is dangerous to assume low populations or delayed activity.

To monitor for fruit fly activity use the yellow "A M" (Apple Maggot) traps and get them out immediately if they aren't

to monitor for early activity, use the yellow fruit fly apple maggot traps, and get them out immediately if they aren't already. Place traps on the exterior of orchards, especially near any abandoned blocks. However, if you had a crop in your orchard and it was not harvested, then you run the risk of having a resident population of cherry fruit fly. If this is the case, the traps should also be placed on the interior of the orchard. The traps should be replaced every two weeks, as the ammonium attractant wears off. The threshold is one fly in any trap in a given block.

Since cherry fruit flies are very mobile, alternate middle row sprays of either Guthion or Imidan do an excellent job in controlling this pest. Keep in mind that Imidan can only be used on tart cherry. An insecticide should be applied as soon as possible after a catch of cherry fruit fly occurs.

WEEKLY FRUIT PEST UPDATE

By Gary Thornton

Apple growers who are not trapping need to keep their fruit protected, as the **codling moth** flight continues to be overall above threshold. This past week the trap catches averaged 6.7 moths per trap, which is down from last week's trap catches of about 13 per trap. We are seeing the tapering off of the first generation flight. Codling moth larva can be found in abandoned apples now. **Potato leafhoppers** are common now in young apple blocks that have not been treated. Their feeding can reduce the terminal growth of apples. **Spotted tentiform leafminer** are between generations with the trap catches at 38 moths per trap. Tissue feeding mines can be found, but generally are at very low levels this year. Clumps of pygmy fruit can be found in blocks where **rosy apple aphids** were present. Control is not warranted at this time, as the pest has run its course and most of them will soon be leaving the trees and moving to narrow leafed plantain in the ground cover. **Green apple aphids** are building in some apple blocks now, their control is particularly important in young blocks to encourage terminal growth. **European red mites** are above threshold in some blocks, mostly those that had no control earlier in the year. **Fireblight** is a problem in a few blocks. If growers have the labor, the infections can be cut out, if there are not too many of them. This is particularly important to do in young blocks.

Cherry: Cherry fruit fly has emerged (see above article). **Plum curculio** pressure has dropped way off, however, recent research has shown that cherries run the risk of having further plum curculio infestation well into July. Reductions in your spray program for plum curculio should always be accompanied by a thorough scouting program. **Two spotted spider mites** are slow to build this year in tart cherry. With the dry conditions, this is surprising. Growers should watch this pest closely, as populations in trees can build rapidly. Some growers are reporting increasing levels of **plum nursery mites** in tart cherry. **Cherry leaf spot** is controlled very well in most orchards. Once the cherries start to turn color, a fungicide that works well on both leaf spot and brown rot should be used. Sweet cherries are very susceptible to brown rot now. Orbit, Elite and Indar are the top materials to use for excellent control and should be used on a protectant basis.

Plum: Pressure from **potato leafhopper** has increased recently and plum growth is starting to suffer from this pest. A sample of plums with an infestation of **mealy plum aphids** was brought into the office. These aphids attack the shoots of plums in much the same way that green apple aphids attack apple shoots. This particular block did not have populations that warranted control.

Peaches are still susceptible to **tarnished plant bug** injury. This will show up as oozing droplets of a clear substance from the fruit itself. Insecticides should be applied prior to mowing of the orchard or the cutting of hay from nearby fields.

MISCELLANEOUS

PROVADO 1.6f STONE FRUIT LABEL GRANTED

John Wise, Dept. of Entomology, MSU

The Provado 1.6F label has now been granted for the stone fruit group (including cherries, peaches, plums, prunes, apricot, nectarine, plumcot and apricot) for the control of scarab beetles, leafhoppers, tarnished plant bug, San Jose scale, aphids and suppression of the plum curculio. The Pre-Harvest Interval (PHI) for apricot, nectarine and peach is 0 days, and cherry, plum, plumcot and prune is 7 days. The Re-Entry Interval (REI) for stone fruit applications is 12 hours.

FELLOW FRUIT GROWERS AND RELATED INDUSTRY PERSONNEL

After a great deal of reflection and consideration for the future of my family and myself, I have decided to leave MSU Extension and my position here as the District Fruit IPM Agent. My last official day will be August 1st. I have taken a position as a future commercial loan officer at Fifth Third Bank in Traverse City...a big change from what I am doing now! It may take awhile to get use to the suit and tie again!

I am not leaving the area though, and will still have my own farm in Oudeburg, Pa. as don't be surprised to see me at regional

I am not leaving the area though, and will still have my own farm in Suttons Bay, so don't be surprised to see me at regional meetings. For many years to come I will cherish the relationships that I have developed over the last 14 years while working for MSU Extension and the fruit industry.

Gary Thornton

[ACTUAL AND PREDICTED DEGREE-DAY
ACCUMULATIONS SINCE MARCH 1, 2003](#)

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Bill Klein, kleinw@pilot.msu.edu

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July 15, 2003

GROWING DEGREE DAY ACCUMULATIONS as of July 14, 2003 at the NWMHRS

Year	2003	2002	2001	2000	1999	13 yr. Av. ('90-2002)
GDD42	1621	1587	1738	1785	1928	1679
GDD50	959	1015	1060	1056	1210	1034

WEATHER:

After a month of nearly dry conditions, a heavy two-day rain occurred on 7/10-12. Rainfall at the NWMHRS for the past week totaled 2.29". Evaporation totaled 1.53".

GROWTH STAGES at NWMHRS

Apple: Red Delicious – 42mm fruit

Pear: Bartlett – no fruit

Sweet Cherry: Napoleon – 23 mm fruit

Tart Cherry: Montmorency – 19 mm fruit

Apricot – no fruit

Plum: European type – 25 mm fruit

Grapes: Chardonnay – buckshot berries

Codling moth trap catches averaged 10/trap this week from traps throughout Leelanau County. Trap catches have remained steady in recent weeks, requiring many apple orchards to maintain insecticide coverage. Codling moth larva have shown up in commercial blocks. With heavy pressure, sprays should be tightened up. This pest is controlled best with full cover sprays, not alternate middle rows. **Potato leafhoppers** are a threat to young apples, strawberries and grapes. The first **apple maggot** emerged last week on July 10th. Growers should put out red spheres for trapping apple maggot. Growers who are not trapping should apply an insecticide in 7-10 days after July 10th to insure clean fruit at harvest. Alternate middle row sprays control this pest very well. **Spotted tentiform leafminer** trap catches increased to 138/trap. This indicates the beginning of the second generation. **European red mite** populations declined in several untreated blocks that we are monitoring, likely due to all the rainfall.

Cherry fruit fly catches are common now after last week's rain. Growers who are not trapping should have on an insecticide for control; alternate row middle sprays are appropriate. Last week's rains resulted in a heavy infection period for **cherry leaf spot**. **Brown rot** and **Alternaria** pressure is very high, particularly in cracked sweet cherries. Indar, Orbit and Elite are great for brown rot but have no efficacy against Alternaria. Abound is labeled on cherries for brown rot and Alternaria but is

for brown rot, but have no efficacy against Alternaria. A second is labeled as effective for brown rot and Alternaria, but is extremely phytotoxic to some varieties of apples. Drift onto apples needs to be avoided when using this product. Spray tanks need to be thoroughly cleaned before spraying apples - read the label! **Two-spotted spider mite** catches actually declined this week in tart cherries. This is likely due to all the rain we had late last week. Populations prior to the rain remained low. Some growers are reporting increasing populations of **plum nursery mite**. In tart cherries, **lesser peach tree borer** trap catches averaged 10 per trap.

Mealy plum aphids have been observed on the terminals of plums, but this is a rare occurrence. **Apple maggot** can infest plums as well as apples.

Predicted Harvest Dates 2003

Apple maturity for 2003 is expected to be later than normal for most areas of the state. The maturity at harvest is expected to be mixed as well. This is due to cool spring weather. Predicted harvest dates are similar to 2002 dates.

Fairly warm temperatures this spring advanced bud development and in the southern areas of the state bloom were slightly ahead of normal. Then cold weather set in and for the next thirty more days the state was gripped by a long period of below normal temperatures. This slowed bud development and delayed the bloom in the rest of the state. Bloom opened up slowly and remained open for a much longer time this spring in some areas. Cold weather continued to occur after bloom and throughout the thinning season into June.

The delayed bloom and cool weather gives us predicted harvest dates of behind normal. In the southern areas of the state predicted harvest dates will be from 1 to 5 days behind normal and in northern parts of the state as much as 7 to 10 days behind normal. A mixture maturity is also predicted due to the long extended bloom in most areas of the state. Early bloom that opened on older wood set up to 3, 4, 5 days ahead of bloom that opened on 1 year old wood and set. Also, because of the extended bloom it is somewhat difficult to predict when the fruit actually set. Therefore, this year we have a lower confidence in our predicted harvest dates than normal.

2003 Predicted Apple Harvest Dates							
Full Bloom Date				Predicted Harvest Date			
Station	McIntosh	Jons	Reds	McIntosh	Jons	Reds	Observer
SWMREC	30-Apr	30-Apr	4-May	11-Sep	28-Sep	5-Oct	Shane
Deerfield	6-May	8-May	7-May	10-Sep	28-Sep	3-Oct	Tritten
Flint	14-May	15-May	17-May	17-Sep	4-Oct	12-Oct	Tritten
Peach Ridge	15-May	17-May	17-May	18-Sep	7-Oct	13-Oct	Schwallier
Hart	22-May	23-May	23-May	24-Sep	12-Oct	18-Oct	Danilovich
NWMHRS	24-May	26-May	27-May	22-Sep	11-Oct	17-Oct	Thornton

NWMHRS Evaporation and Precipitation Table

<u>Date</u>	<u>Evap/week (in.)</u>	<u>75% of Evap/week</u>	<u>Rainfall/wk at NWMHRS (in.)</u>	<u>Rainfall minus 75% of Evaporation</u>
5/6	1.05	0.79	0.98	0.19
5/13	0.96	0.72	1.50	0.78
5/20	1.29	0.97	0.16	-0.81
5/27	1.08	0.81	0.05	-0.76
6/3	1.35	1.01	0.23	-0.78
6/10	1.04	0.78	0.52	-0.26
6/17	1.40	1.05	1.16	0.11
6/24	2.10	1.58	0.00	-1.58
7/1	1.67	1.25	0.44	-0.81
7/8	1.98	1.49	0.00	-1.49
7/15	1.53	1.15	2.29	1.14
Totals	15.45	11.59	7.33	-4.26

ACTUAL AND PREDICTED DEGREE-DAY
ACCUMULATIONS SINCE MARCH 1, 2003

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July 22, 2003

GROWING DEGREE DAY ACCUMULATIONS as of July 21, 2003 at the NWMHRS

Year	2003	2002	2001	2000	1999	13 yr. Av. ('90-2002)
GDD42	1794	1827	1968	1939	2145	1880
GDD50	1076	1199	1234	1155	1371	1179

WEATHER:

Although surrounding counties received some heavy rains the past few days, rainfall at the NWMHRS for the past week only totaled .43" with evaporation totaling 1.54".

GROWTH STAGES at NWMHRS

Apple: Red Delicious – 46mm fruit
Pear: Bartlett – no fruit
Sweet Cherry: Napoleon – 23 mm fruit
Tart Cherry: Montmorency – 21 mm fruit
Apricot – no fruit
Plum: European type – 27 mm fruit
Grapes: Chardonnay – berry touch

INSECTS AND DISEASES

By Gary Thornton

The first **apple maggot** emerged last week on *July 10th*. Growers who are not trapping should have an insecticide on by now to insure clean fruit at harvest. Alternate middle row sprays control this pest very well.

Codling moth trap catches remain high enough to continue to be a threat to area apple growers. Trap catches averaged 6 moths per trap this past week. With the threshold being 5 moths per trap, this indicates that if growers are not scouting, they need to keep their fruit protected with an appropriate insecticide. Growers are finding codling moth larva in the fruit in some blocks that have had a fairly tight spray schedule. Elsewhere in the state there are varying levels of resistance to Guthion and Imidan. Growers who have been experiencing difficulty in controlling codling moth in recent years and have maintained tight schedules, should consider other options for control in the future such as mating disruption. You shouldn't rely on mating disruption for 100% of your control but it can be an important part of it when resistance is a concern. **Tentiform Leafminer**

disruption for 100% of your control, but it can be an important part of it when resistance is a concern. **Tomato Leafminer** is in the second generation now. Trap catches rose slightly to 127 per trap. **Potato leafhoppers** continue to be a threat to young apples. Many plums have slowed down terminal growth due to this pest. Although insecticides like Provado work well against this pest, once the shoot produces new leaves, the new leaves are not protected. Insecticides such as Guthion do a better job on maintaining control of this pest.

European red and two spotted spider mites have surged in an untreated block that we are monitoring. Growers should check their apples to determine if treatment is needed. Pyramite is the best material for European red mites, but do not overuse it. We have an abundance of miticides now, so be sure to rotate them to avoid resistance.

Cherry fruit fly continues to emerge since the recent rains. Growers who are not trapping should have on an insecticide for control; alternate row middle sprays are appropriate. Monitor your pre-harvest intervals closely. The rains that came on Monday and Tuesday resulted in **leaf spot** infection periods in the light to heavy range, depending on your location. **Alternaria** is a problem in sweet cherries, especially where they cracked. Abound fungicide is an option, but is very phytotoxic to apples. Flint may have some efficacy, although it is not listed on the label. **Brown rot** has been reported in sweets and is becoming a greater concern as the tart cherries near harvest. The fungicides Elite, Orbit and Indar are all excellent in controlling American brown rot when used on a protectant basis.

MISCELLANEOUS

Clarksville Summer Orchard Field Day

The Clarksville Summer Orchard Field Day is scheduled for **Monday, July 28, 2003 at 4:00 p.m.-8:30 p.m.** Thinning growth regulator trials will be featured and you should find them quite educational as well as interesting. Following is the field day agenda:

4:00 p.m. Registration and Refreshments

Welcome

4:30 Tour Plots

Organic Plot

Rootstocks - Dr. Ron Perry

Super Spindle -Dr. Ron Perry

6:00 Dinner (free)

7:00 Tour Growth Regulator Plots-Phil Schwallier

8:30 Adjourn

For additional information, contact Phil Schwallier or Jan Hunt at Clarksville, 616/693-2193.

Pre-Harvest CA Clinic

A Pre-Harvest CA Clinic will be held on Friday, August 8, from 9:30 a.m. - 2:00 p.m. at the Alpine Township Hall in Comstock Park, Michigan. Alpine Township Hall is located on the corner of 6-Mile and M-37, Alpine Ave. This Pre-Harvest CA Clinic will feature apple maturity, predicted harvest dates, CA and storage recommendations and a special section on the proper use of the new material Smart Fresh from Agri Fresh Chemical. Smart Fresh was first labeled last year for use in the United States and since, it has been applied to numerous CA rooms especially in Washington state. This Pre-Harvest CA Clinic will review results of the first year's trials in the U.S. (New York, Michigan) and elsewhere. Speakers from the Eastern U.S. as well as from the Dept of Horticulture, MSU, will be included at this Pre-Harvest Clinic. For more information, contact Phil Schwallier at 616/693-2193.

Second Annual Variety Showcase Planned

International Plant Management, Inc, of Lawrence, MI in cooperation with Cornell University, Michigan State University Extension and Ontario Tender Fruits will sponsor a variety showcase on **September 11th**. The event will be held at the home of Wallace and Laura Heuser and will feature variety selections from New York, Michigan, Ontario, Pennsylvania, and New Jersey.

The variety range will include: Fresh market and processing cling peaches, European and Japanese plums, Asian and domestic pears and early apples.

Featured speakers will include: Dr. Robert Andersen of Cornell University; Dr. Bill Shane, Phil Schwallier, Mira Donilovich, MSU; Ken Slingerland of Vineland, Ontario; Wallace Heuser of International Plant Management, Inc., Annette and Randy Borge of Fruit Acres; Paul Friday of Flamin' Fury along with other breeders and researchers.

The variety showcase registration and variety displays will begin at 3:00. Variety discussions and featured speakers will run from 4:00 to 6:00 with the cookout at 6:30. All growers, extension personnel and their spouses are invited to attend.

Wallace and Laura Heuser's home address is: 55826 60th Avenue, Lawrence, MI. Please call 800/424-2765 for further information and to RSVP.

CIAB Weekly Raw Product Report

http://cherryboard.org/Week_3.htm

NWMHRS Evaporation and Precipitation Table

	<u>Date</u>	<u>Evap/week</u> <u>(in.)</u>	<u>75% of</u> <u>Evap/week</u>	<u>Rainfall/wk at</u> <u>NWMHRS (in.)</u>	<u>Rainfall minus</u> <u>75% of</u> <u>Evaporation</u>	
	5/6	1.05	0.79	0.98	0.19	
	5/13	0.96	0.72	1.50	0.78	
	5/20	1.29	0.97	0.16	-0.81	
	5/27	1.08	0.81	0.05	-0.76	
	6/3	1.35	1.01	0.23	-0.78	
	6/10	1.04	0.78	0.52	-0.26	
	6/17	1.40	1.05	1.16	0.11	
	6/24	2.10	1.58	0.00	-1.58	
	7/1	1.67	1.25	0.44	-0.81	
	7/8	1.98	1.49	0.00	-1.49	
	7/15	1.53	1.15	2.29	1.14	
	7/22	1.54	1.16	0.43	-0.73	
	Totals	16.99	12.74	7.76	-4.98	

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Last Revised: 7-22-03



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Position Vacant
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July 29, 2003

GROWING DEGREE DAY ACCUMULATIONS as of July 28, 2003 at the NWMHRS

Year	2003	2002	2001	2000	1999	13 yr. Av. ('90-2002)
GDD42	1970	2039	2180	2123	2374	2073
GDD50	1197	1355	1390	1282	1544	1316

WEATHER:

Very strong winds from 7/25-7/27 caused some damage to tart cherries. Rainfall has varied considerably in NW MI during the past two weeks. Rainfall at the NWMHRS has totaled 0.43 and 0.29 inches per week. Evaporation totaled 1.54 and 1.56 inches per week, respectively.

GROWTH STAGES at NWMHRS

Apple: Red Delicious – 49mm fruit

Pear: Bartlett – no fruit

Sweet Cherry: Napoleon – harvest complete

Tart Cherry: Montmorency – harvest

Apricot – no fruit

Plum: European type – 30mm

Grapes: Chardonnay – berry touch

INSECTS AND DISEASES

By Duke Elsner and Jim Nugent

Sweet cherry harvest is nearly complete. This will be the peak week for tart cherry harvest. **Cherry fruit fly** trap catch is steady to increasing, so growers will need to be concerned about continued egg laying in late harvest blocks. Watch the preharvest interval (PHI) on insecticides this late in the season. Imidan (rated excellent for CFF) has a 7 day PHI; Sevin 50W and 80S are rated good with a 3 day PHI; Ambush and Pounce are rated fair; also with 3 day PHI's. **American plum borer** second generation adult activity is picking up, just in time for egg laying in fresh shaker injury on trunks. **Lesser peach tree borer** adult flight is dropping off now. Reminder that ethephon has a 7 day PHI.

Apple: **Apple maggot** adults are active in some sites and growers should get traps out if they have not done so already

Apple maggot adults are active in some sites, and growers should get traps out if they have not done so already. **Codling moth** trap catches have remained generally stable, but dramatically increased in a few blocks in warm sites, indicating the beginning of second generation adult emergence. This timing is very consistent with codling moth models, which predict second generation emergence to begin at 1150 to 1200 DD50 (we are currently at 1197 at the NWMHRS). Sprays should be timed for about 250 DD50 after reaching threshold. Please note in some blocks the first generation flight has remained above threshold, so in these blocks it is important to keep a good cover spray program. **Apple rust mite** numbers are variable, but watch out for them and other mite species.

Wine grape recovery from March's bitter cold has been very encouraging, but the amount of trellis area not filled in with leaves is still quite obvious. **Potato leafhopper** remains the most significant insect pest in vineyards. Watch for **powdery and downy mildew** in the crowded base growth that we have encouraged in most vineyards this year.

Strawberry aphid and **potato leafhopper** are being found in first year strawberry plantings. Provado is a new alternative under a Section 18 label that should provide control of both pests.

CIAB Weekly Raw Product Report

http://cherryboard.org/Week_4.htm

LEAF SAMPLES FOR TISSUE ANALYSIS

Leaf samples for nutrient analysis should be done before **August 15th** for best results. The charge is \$27 for a complete analysis. Checks should be made out to *Michigan State University*, and included with samples shipped to: **MSU SOIL & PLANT NUTRIENT LAB, A81 Plant & Soil Sciences Bldg., East Lansing, MI 49924-1325.**

Forms to be included with your samples can be obtained from the NW MI Horticultural Research Station or your local MSU Extension office. Please call us at 946-1510 to request one, or if you need instructions for taking your samples.

NWMHRS Evaporation and Precipitation Table

<u>Date</u>	<u>Evap/week (in.)</u>	<u>75% of Evap/week</u>	<u>Rainfall/wk at NWMHRS (in.)</u>	<u>Rainfall minus 75% of Evaporation</u>
5/6	1.05	0.79	0.98	0.19
5/13	0.96	0.72	1.50	0.78
5/20	1.29	0.97	0.16	-0.81
5/27	1.08	0.81	0.05	-0.76
6/3	1.35	1.01	0.23	-0.78
6/10	1.04	0.78	0.52	-0.26
6/17	1.40	1.05	1.16	0.11
6/24	2.10	1.58	0.00	-1.58
7/1	1.67	1.25	0.44	-0.81
7/8	1.98	1.49	0.00	-1.49
7/15	1.53	1.15	2.29	1.14
7/22	1.54	1.16	0.43	-0.73
7/29	1.56	1.17	0.29	-0.88
Totals	18.55	13.91	8.05	-5.86

[ACTUAL AND PREDICTED DEGREE-DAY
ACCUMULATIONS SINCE MARCH 1, 2003](#)

Please send any comments or suggestions regarding this site to:

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